AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-27. (Cancelled).

Claim 28. (Currently Amended) The method of Claim 29 ~~for *in vitro* regeneration comprising~~ , wherein said cells are of a liver section~~the following steps:~~

~~provision of a liver sectate *in vitro*,~~

~~induction of a significant structural growth of the sectate compared with an untreated sectate (control)~~ growth of said cells is induced by ~~through administration of~~ treating, *in vitro*, a resection surface of said liver section with ~~EFO~~ EPO, TPO, or GH or a derivative~~s~~ thereof ~~on the liver resection surface; and~~

~~where appropriate, use of the treated sectate for the treatment of liver disorders~~.

Claim 29. (Currently Amended) A method for *in vitro* regeneration of tissue comprising ~~by~~ multiplying and differentiating adult tissue-specific cells *in vitro*, ~~characterized in that the growth process of the cells is initiated and terminated, and structurally guided, through the use of the~~ in the presence of exogenous ~~growth factors thrombopoietin (TPO) and/or~~ erythropoietin (EPO) or a derivative thereof, wherein the growth of said cells is locally initiated, terminated and structurally guided under the influence of EPO~~,~~ ~~and/or growth hormone (GH), in particular human growth hormone~~

~~(HGH), and/or somatostatin and/or leukemia inhibitory factor (LIP) and/or ciliary neurotropic factor (CNTF)~~.

Claim 30. (Currently Amended) The method as claimed in claim 29, ~~characterized in that~~ wherein said cells are additionally cultured in the presence of at least one growth factor selected from the group consisting of transforming growth factor beta (TGF beta), prostaglandin, granulocyte-macrophage stimulating factor (GM-CSF), growth hormone releasing hormone (GHRH), thyrotropin-releasing hormone (TRH), gonadotropin-releasing hormone (GnRH), corticotropin-releasing hormone (CRH), dopamine, antidiuretic hormone (ADH), oxytocin, prolactin, adrenocorticotropin, beta-celitropin, lutrotropin and~~/or~~ vasopressin ~~is employed additionally as growth factor~~.

Claim 31. (Currently Amended) The method as claimed in claim 29 or 30, ~~characterized in that~~ wherein said cells are additionally cultured in the presence of at least one factor selected from the group consisting of a ~~one or more~~ nerve regeneration factor, ~~s, preferably nerve growth factor (NGF) and/or one or more~~ and a vessel regeneration factor~~s, preferably vascular endothelial growth factor (VEGF) and/or platelet derived growth factor (PDGF) are employed in addition~~.

Claim 32. (Currently Amended) The method as claimed in ~~at least one of~~ claim~~s~~ 29 or 30~~-31~~, ~~characterized in that the~~ wherein said method is carried out in the presence of endothelial cells.

Claim 33. (Cancelled).

Claim 34. (Currently Amended) The method as claimed in claim 33, ~~characterized in that~~ wherein~~the growth process of~~ the cells are grown ~~is locally initiated and terminated, and structurally guided, by~~ in the presence of a biological matrix

or ~~by~~ a supporting structure, which acts as an inductive substrate for three-dimensional growth.

Claim 35. (Cancelled).

Claim 36. (Currently Amended) The method as claimed in claim 34 ~~or 35~~, ~~characterized in that~~ wherein the biological matrix or supporting structure is selected from the group consisting of an implant, a stent, a patch, a skin, a hydrogel, a bone substitute material, an allogenic acellularized or non-acellularized tissue, an autologous acellularized or non-acellularized tissue, a xenogenic acellularized or non-acellularized tissue, a synthetic tissue, a feeder and a fabric~~a transplant and/or a supporting material is used as biological matrix or as supporting structure for the growth of cells~~.

Claim 37. (Currently Amended) The method as claimed in ~~at least one of claims 29 to 36~~ claim 34, ~~characterized in that~~wherein the biological matrix or supporting structure has been precolonized with cells that are selected from the group consisting of ~~, preferably~~ tissue-specific cells, precursor cells, bone marrow cells, peripheral blood, adipose tissue and~~/or~~ fibrous tissue~~, or already prepared *in vitro* for the *in vivo* colonization or the inductive remodeling~~.

Claims 38-52. (Cancelled).

Claim 53. (New) The method as claimed in claim 29, wherein said adult tissue-specific cells are at least one member selected from the group consisting of osteoblasts, fibroblasts, hepatocytes and smooth muscle cells.